

## Description

# [Victor Grand Piano Pinblock Extractor]

### BACKGROUND OF INVENTION

- [0001] The tuning pins in a grand piano are installed in a laminated plank called a pinblock or wrestplank which is located beneath the large cast iron harp. Herein, it will be called a pinblock.
- [0002] For more than a hundred years, some manufacturers of grand pianos have installed the pinblocks in the piano cases with wooden dowels, shims and glue along three sides and bottom of the pinblock, making it an integral part of the case.
- [0003] Over a period of time the pinblocks will wear and otherwise deteriorate to a point where they will no longer securely hold the tuning pins and the pinblocks will have to be replaced.
- [0004] The known methods of removing the old blocks involve the use of hammers, chisels, saws of various sorts and electric routers. All of these methods are time consuming, uncontrollable and often result in residual damage to the

finished parts of the cases.

## **SUMMARY OF INVENTION**

[0005] The inventions are a device and a method specifically designed for the sole purpose of quickly, easily and cleanly separating the pinblock from the piano case along the glue line between the two parts. The result is predictable and is accomplished without any residual damage to the finished parts of the case.

[0006]

## **BRIEF DESCRIPTION OF DRAWINGS**

[0007] Fig. 1 Top view showing offset bolt head

[0008] Fig. 2 Side view showing bolt head and shaft and bottom recess

[0009] Fig. 3 Bottom view

[0010] Fig. 4 Graphic three dimension view

[0011] Fig. 5 Showing saw cut and holes for device shaft

[0012] Fig. 6 Showing device inserted in pinblock

[0013] Fig. 7 Showing wrench on bolt head ready for rotation

## **DETAILED DESCRIPTION**

[0014] THE DEVICE

[0015] Material: Steel or Aluminum

[0016] Cylinder

[0017] Diameter: 2 1/2"

[0018] Length: 1 11/16"

[0019] Bottom 3/16" x 3/16"

[0020] Shaft

[0021] Length: 2 1/4"

[0022] Diameter: 5/8"

[0023] FABRICATION

[0024] 1. The cylinder is cut to the specified length from a stock mild steel or aluminum round bar.

[0025] 2. The cylinder is placed in a four jaw chuck in a lathe and centered for a recess cut in the bottom measuring 3/16" x 3/16" and finish cuts top and bottom.

[0026] 3. The cylinder is moved 1/2" off center in the chuck then drilled through its length for a 5/8"-11 thread.

[0027] 4. The cylinder is tapped top and bottom for a 5/8"-11 thread to a depth of 3/4".

- [0028] 5. The shaft is made from a Grade 5 hex head 5/8"-11 machine screw 3" long.
- [0029] 6. The head of the machine screw is cut off 1 1/2" from the thread and the cut is finished on the threaded part. The head part is discarded.
- [0030] 7. The thread of the shaft is cut to a length of 3/4" remaining, is screwed in to the bottom of the cylinder and tightened.
- [0031] 8. A Grade 5 hex head 5/8"-11 machine screw 3/4" long is screwed into the top of the cylinder and tightened.
- [0032] 9. The operating lever for the device is a 15/16" wrench applied to the bolt head on the top of the device.
- [0033] THE METHOD
  - [0034] 1. The pinblock spans the full width of the inside of the piano case.
  - [0035] 2. There are usually three dowels in the treble end and two in the bass end. For reference, facing the piano from the keyboard, the treble end is on the right and the bass on the left. With a half-inch bit, drill out the dowels to the depth of the pinblock.
  - [0036] 3. Place the blade of the saw in the hole and make a cut, at a slight angle toward the bass end, to the free edge.
  - [0037] 4. With a 5/8" bit drill a hole about eight inches from each

side of the saw cut and on a center 7/8" from the front edge. You might also make a third similar hole a foot or so from the treble end. These holes should be as nearly perpendicular as possible.

- [0038] 5. Place the shaft of the tool in the hole on the treble side of the saw cut. It will go in only gooway.
- [0039] 6. Place a socket wrench on the bolt head and with a steady and increasing force rotate the device clockwise through one-half turn. The pinblock will release quite suddenly, bringing with it the horizontal blind dowels in the front of the case.
- [0040] 7. Repeat from step five for the hole on the bass side to free the small piece remaining at the bass end.